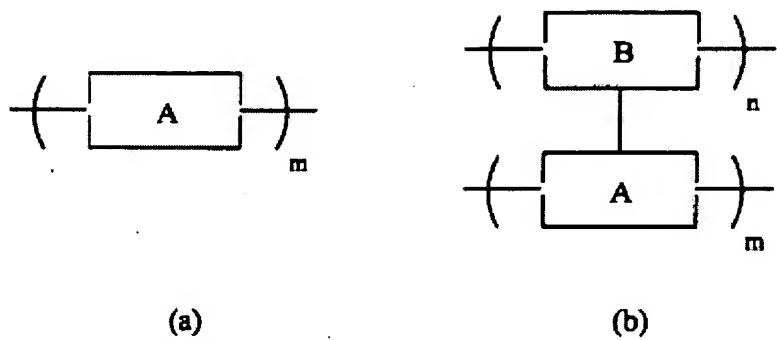


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ABSTRACT

The invention relates to the ladder-type and blue light-emitting polymers with excellent thermal stability, which are prepared by either grafting with blue luminescent monomers on the polymer backbones or polymerization of styrene derivatives containing fluorene. The above blue light-emitting polymers have a high glass transition temperature and a 5%-weight-loss temperature above 400 °C. Accordingly these polymers can be used as blue luminescent materials in display devices, home appliances or cellular phones.

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Figures 1(a) and 1(b)

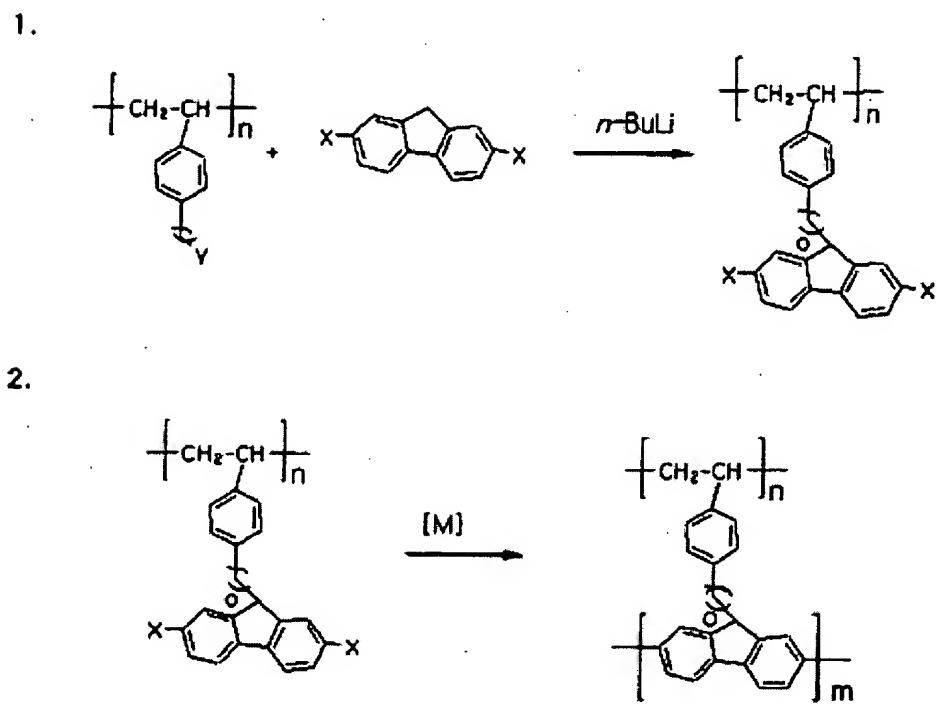


Figure 2: synthetic scheme of the ladder-type blue light-emitting polymer.

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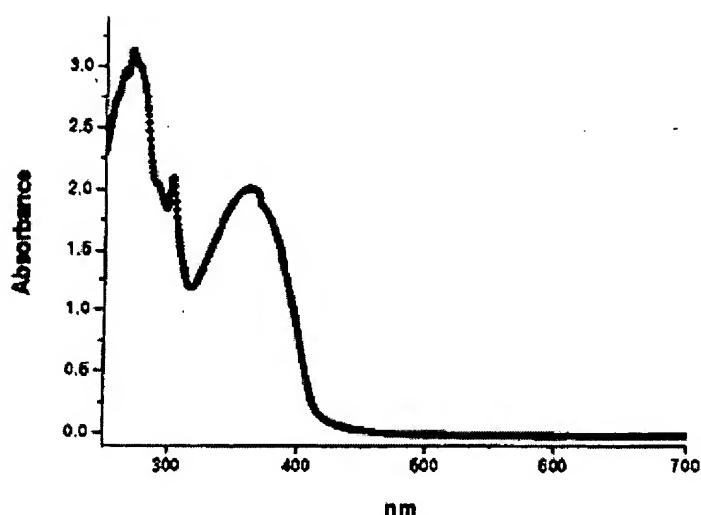


Figure 3: UV-VIS spectra

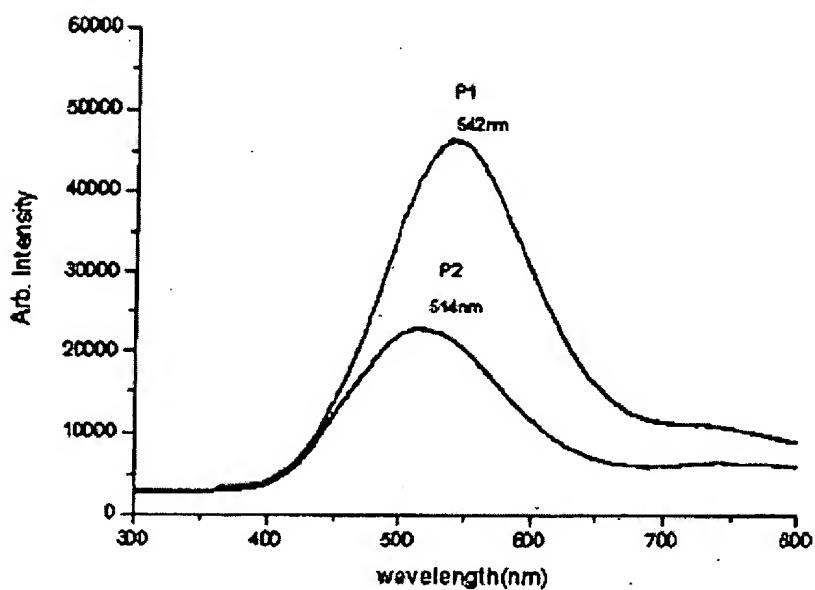


Figure 4: Photoluminescence spectra

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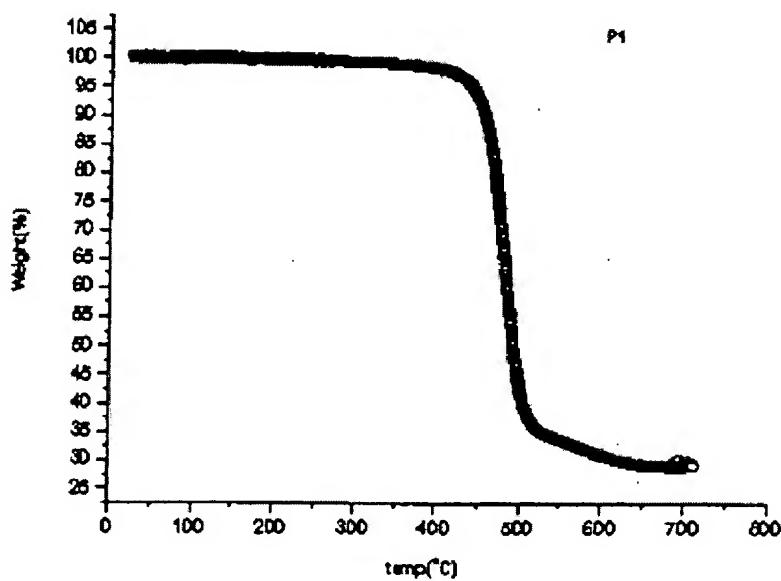


Figure 5: TGA of P1

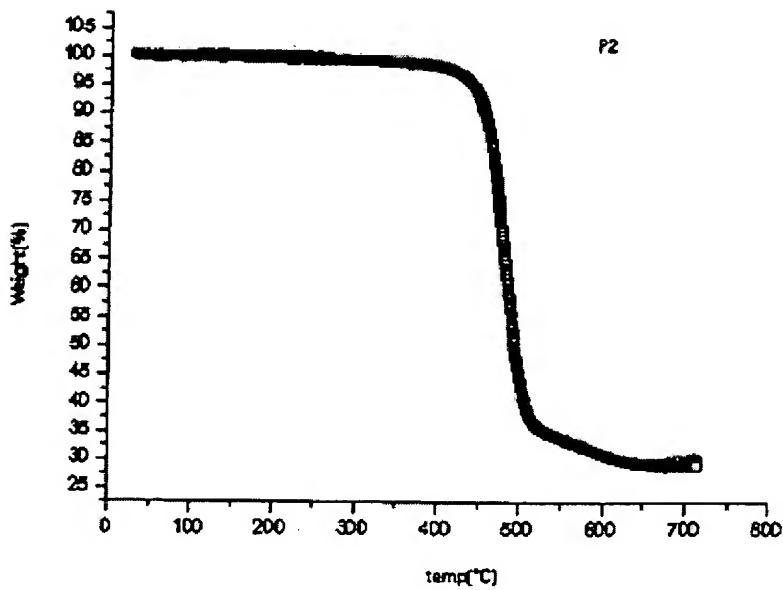


Figure 6: TGA of P2